SUGGESTIONS FOR CONSIDERATION BY THE NC CLIMATE CHANGE COMMISSION REGARDING THE SEVEN PROPOSED BILLS CIRCULATED BY TIM DODGE ON 4-1-2010

Dr. Stanley R. Riggs

All seven of the proposed bills are great and I strongly support each one of them with the suggestions.

Itemized below are my suggestions for inclusion within each of the bills by page number and line original line number. The underlined material represents either an addition to or a replacement of the wording between the original text that is NOT underlined. The material highlighted in yellow are either total deletions or additions to the original text.

BILL 1: Establish NC Commission on Climate Change

Page 2 Line 33: To undertake any additional studies related to global climate change <u>such</u> as development of a coastal adaptation plan or other topics as determined by

BILL 2: NC Climate Change Adaptation Strategy

Page 1 Line 16-28. In developing the Strategy, the Department of Environment and Natural Resources shall appoint two expert panels to participate and cooperate in developing the Adaptation Strategy. These two panels will work in a technical advisory capacity to the Department of Environment and Natural Resources.

The first panel will consist of other State and Federal agency personnel including the Department of Transportation, the Department of Crime Control and Public Safety, the Department of Insurance, the Department of Administration, the d=Department of Agriculture and Consumer Services, the Department of Commerce, the Department of Public Instruction, the Department of Cultural Resources, the North Carolina Wildlife Resources Commission, and any other State agency or commission that might have a role or be affected by global climate change. Federal agency personnel will represent the United States Army Corps of Engineers, the Federal Highway Administration, the United States Department of Interior, the United States Environmental Protection Agency, the United States Department of Commerce, the United States Department of Defense, and any other Federal agency that might have a role or be affected by global climate change in North Carolina. The second panel will consist of technical experts on North Carolina climate change and will come from the scientific community and associated disciplines within the University of North Carolina System, as well as local government units and other nongovernmental organizations.

Page 1 Line 30-31.the Department of Environment and Natural Resources <u>will work</u> in concert with the two technical advisory panels to conduct an assessment that, based on the

Page 2 Line 34-35.the Department of Environment and Natural Resources <u>will work</u> in concert with the two technical advisory panels to develop the North Carolina Climate

Page 3 Line 45-46 #8.recreational beaches, <u>responding to shore zones that are most vulnerable to storms and sea-level rise and develop options for allowing future changes and plans for their short and long-term use.</u>

Page 3 Line 48 #9. methods so that estuarine shorelines are <u>allowed to evolve and migrate</u> in response to rising sea level:

Page 3 Line 49-50 #9a. Restoring, enhancing, <u>and mitigating existing wetland or riparian habitat and</u> vegetation.

Page 3 Line 51 #9b. Constructing and managing new wetlands in upslope regions.

Page 4 Line 1-3 #9c. Eliminate this entry—engineered structures do not "maintain, restore, or enhance the shoreline's natural habitats." The use of these structures into the near future assume status quo without sea-level rise.

Page 4 Line 6-10 #10. train coastal managers to <u>implement economically viable and environmentally sound procedures for particularly vulnerable portions of the estuaries and barrier islands to climate variability and change; implement adaptation strategies; engage and educate stakeholders <u>and other coastal managers</u>.</u>

Page 4 Line 27-29 #16. for the costs of <u>implementing ecologically beneficial adaptive</u> strategies for managing estuarine shorelines in response to rises in sea level.

Page 4 Line 51. Resources, will work in concert with the two technical advisory panels to develop a

Page 5 Line 4. Environment and Natural Resources, <u>in concert with the two technical advisory panels</u>, may <u>recommend to fund the improvement of current permanent monitoring stations</u>.....

Page 5 Line 9.the environmental Review Commission, <u>Coastal Resources</u> <u>Commission</u>, <u>Fisheries Commission</u>, <u>Wildlife Commission</u>, and to any future

BILL 3: Utilities Commission Green Energy Study

Page 1 Line18 #5. Policies to encourage the development of <u>all forms of renewable</u> energy at different scales and types including wind, <u>solar (light and thermal)</u>, ocean (waves, currents, and thermal), biofuels (algae, grass, wood, etc.), etc.

BILL 4: Study Carbon Offsets and Carbon Sequestration

Page 1 Line 6. LANDS, FOREST LANDS, <u>WETLANDS AND COASTAL WATERS</u>, AND OTHER WORKING LANDSCAPES; TO STUDY

Page 2 Line 5 #1. forest land, wetlands, coastal waters, and other

Page 2 Line 16 #1f. ADD NEW 1f AS FOLLOWS.

(f) Preserving and restoring coastal marshes, aquatic vegetation, and shellfish beds.

Page 2 Line 17 #1f. Change old (f) to (g)

BILL 5: Funds to Asses/Monitor NC Climate Change

Page 1 Line20.entire shoreline system and maps that <u>indicate</u> the detailed distribution of

Page 2 Line 32. SECTION 2. (b) The funds appropriated under section 2(a) shall be used to locate

BILL 6: NC Considers Global Climate Change in Long-Term Planning

Page 3 Line 24 #2.decrease in greenhouse gas emissions, <u>as well as riverine flooding</u>, <u>coastal storm surge</u>, <u>sea-level rise</u>, <u>coastal shoreline erosion</u>, <u>and barrier island-inlet dynamics</u>, <u>etc.</u>

BILL 7: Representative